QUANTA MAGAZINE

Volume 28 - Issue 4
June/July 2011

Information on the Association

Membership of QUANTA, the independent QL user group, is by annual subscription. The Membership Secretary can supply full details. Copies of the association's constitution & annual accounts are available from the Secretary. There is an extensive software library. There are active national subgroups. Details are given in the Member's Guide and in this magazine.

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20th August 2011

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EDITORIAL — Lee Privett

This issue of QUANTA has yet another set of exciting news and developments in the QL and QL related areas.

The committee met during July to discuss urgent matters such as progress on the QUANTA constitution and the QUANTA website which unfortunately has been down now for some time. It is hoped that by the time you read this, a form of the new website will be up and running.

I would request that if you have any comments about the look of the website, please do so to the right people, if you're not sure then send them to the Editor, but bear in mind that we are all unpaid volunteers who run this magazine so anything particularly constructive is very welcome.

Elsewhere in this issue you will find the draft revised constitution and you are encouraged to read thoroughly and send any comments you have to the usual address/contacts.

As to this edition, there are some interesting developments in both hardware and software for the QL, and some very interesting planned hardware that may or may not see the light of day and the usual news items and responses to the queries that come in to QUANTA's helpline.

There are a few ideas coming in the editorial about what people would like to see in taking QUANTA forward and a big thank you to those who emailed comments. I will be publishing those hopefully in the next issue.

Those of you who follow the QL forum may have noted a recent post by me which I extend to QUANTA members, "A coding limitation of 20 lines, challenge" here for more info http://www.qlforum.co.uk/viewtopic.php?f=3&t=171

Again a plea for articles, comments or questions as ever to the usual email or snail mail.

If you have QL-related news that you'd like us to include on this page, please get in touch with News Editor - Dilwyn Jones at news@quanta.org.uk

New Just Words! Website Online

Geoff Wicks writes:

Just Words! has launched its new website:

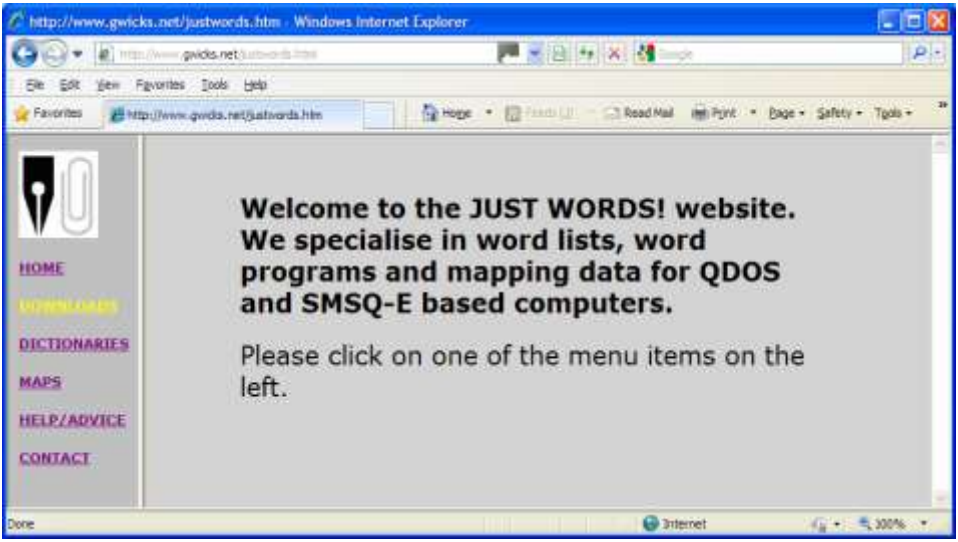
www.gwicks.net/justwords.htm

Initial interest in the site was higher than expected with 50 visitors on the first day and 36 on the second. Most popular item was a GD2 Colour Tutorial, followed by User Friendly Programming and Roger Godley's high resolution GD2 colour versions of Xchange.

Until now Just Words! has used free hosting sites but following the take-over of Lycos sites by Multimania the service deteriorated considerably with irritating advertising and Norton safety warnings.

Two developments during the past year encouraged Just Words! to move to a paid host rather than close the site. The first was the discovery that over a half of UK QL-ers are neither Quanta members, QL Today readers nor subscribers to the QL users email group. A strong QL web presence is needed to maintain contact with these non-organised QL-ers. The second was the many positive QL developments in recent months including numerous hardware projects, QL Today's electronic archive and Quanta's determination to tackle its problems.

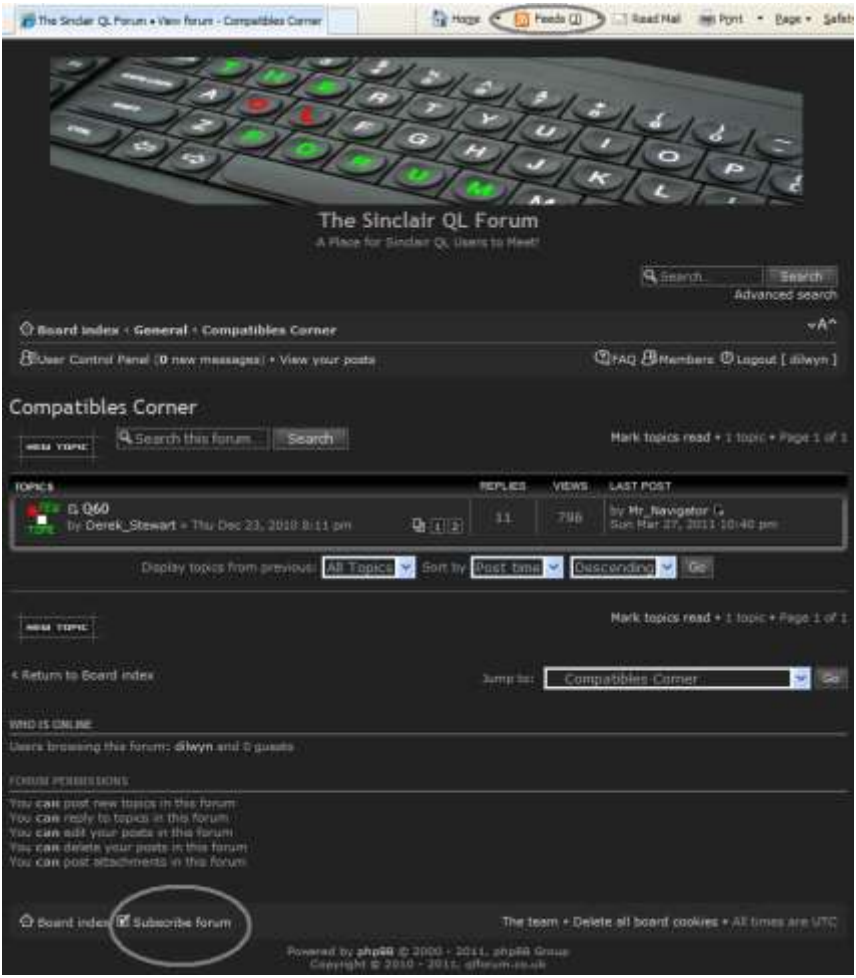
Just Words! has plans to further develop the site.



QL Forum News

If, like me, you dislike having to read forums to search out the latest postings and prefer to have those latest postings arrive in your email inbox as with the QL-users mailing list, here are a couple of tips.

If you are interested in a particular QL Forum section, it has the facility to send you an email when there are new postings in that section. Log into the QL Forum in the normal way, enter the section you want to follow, scroll down to the bottom left of the page and click on Subscribe Forum at the bottom left. I've circled the bit to click on in the screen dump below (on the next page ed.).



Another way to read the latest postings is using what's called RSS (the letters stand for Really Simple Syndication). This lets you access a feed of what's new since you last visited. The facility varies a little from browser to browser, so in brief what you need to do is visit www.qlforum.co.uk and click on whatever button your browser uses to access RSS feeds.

In Internet Explorer 8, I've circled the 'Feeds' button in the diagram below. Firefox is a bit less easy, in the latest Firefox 4 you may not immediately find the button because, due to the simplified default layout, it's hidden until you actually enable it! If the Subscribe button isn't visible (it looks like 3 concentric quarter circles) you will need to customise the lay-

out by going to the View menu, click on the Toolbars command and then the Customise command.

I eventually found a way to use an internet site called FeedMyInbox to provide the feeds of the latest postings once a day to my email inbox. Just visit www.feedmyinbox.com, enter the website URL (www.qlforum.co.uk.). then the email address you want the daily summaries sent to and finally click on the SUBMIT button.

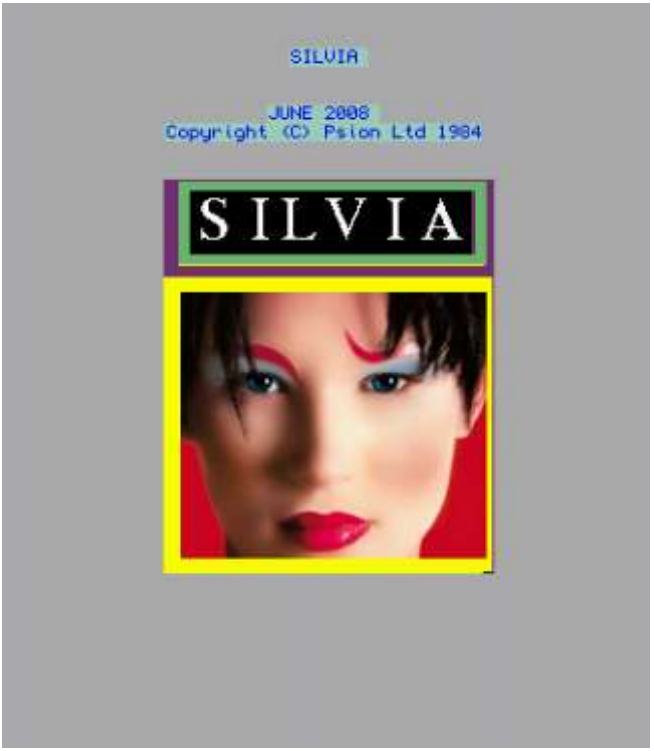
That's it! Screen dump shown below.

Those were just a couple of handy little tips to help you keep up to date with the latest news about the QL, of course.

SILVIA and SOLANO

These are GD2 colour high resolution versions of Xchange (minus Quill) written by Roger Godley. The zip file also contains some sample Easel files. To run the programs you will need a resolution of exactly 1024 x 768 and a GD2 version of SMSQ-E. Please note: these are available ONLY from Geoff Wicks's website at http://www.gwicks.net/justwords.html (downloads page) and NOT from Quanta.

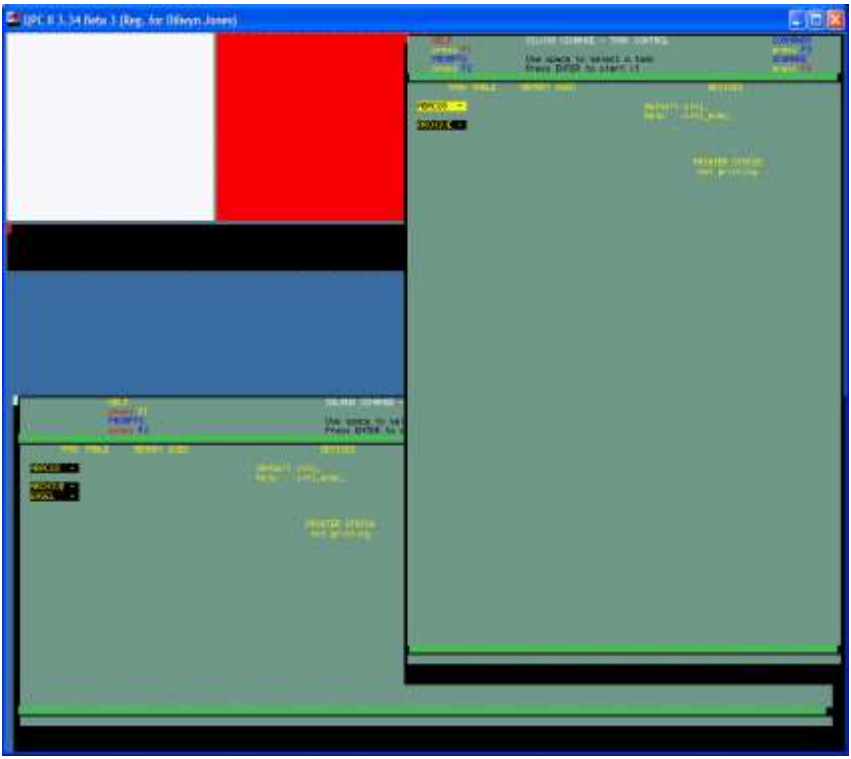
The Silvia version is a portrait version of Xchange Abacus and Archive,



while the Solano version is a landscape version, including Easel as well.

The package is a 310KB download. The first two screen dumps show the opening screens,

while the third screen dump shows how both Task Control screens look when running.



Dilwyn On Twitter

Recent visitors to my website may have noticed that a couple of Twitter buttons have appeared on my website. Tweeting is something new for me, but I hope to use it to announce news of anything added to my website.

Clicking on the Twitter button takes you to a list of my Tweets and there is a "tweet" button as well for anyone else on twitter to retweet or whatever. Not quite sure how it'll work or if I've set it up right yet, but hopefully once working properly will be another way to spread the word of the QL.

For those who've never used Twitter, you can opt to become a "follower" of my Tweets. Which means getting the latest Dilwyn Jones short scribblings of news. Can be sent direct to mobile phones too if you follow instructions on Twitter website http://twitter.com/

If anyone else on Twitter around here wants to send me private messages over it, send it to @DilwynJones2

PCB Design Update

Version 7.19 of Malcolm Lear's PCB Design program is now available from my website. The changes in this latest release are mostly fairly minor:

- End of line termination corrected in Gerber report file.
- Memory allocation changed to automatically allow up to 2Mb art file space on start up.

Sinclair QL Re-Releases

RWAP Services

We have been working hard to safeguard the future of the Sinclair QL through beginning to compile a repository of QL titles.

The repository enables people to see what software was produced for the Sinclair QL and also to be able to purchase working copies when their microdrive cartridges fail. Where we can, we obtain permission from the copyright holder to re-release items on the market.

This has enabled us to bring some of the titles back to the market as well as re-kindle interest in the Sinclair QL and its emulators.

Old favourites brought back to life include:

Jungle Eddi
The Lost Pharaoh
Pengi
Microdeal's Flight Simulator
Microdeal's QL Hopper
Microdeal's The King
Cuthbert in Space

We still retain our existing catalogue , including:

Open Golf
Stone Raider II
Hoverzone
Deathstrike
Flightdeck

All games are available on disk or for use with Q-emuLator on the PC for ONLY £5 each.

Microdrive versions also available - £10 each

Visit the QL Wiki for more details on software, books and hardware for the Sinclair QL: www.rwapadventure.com/ql_wiki

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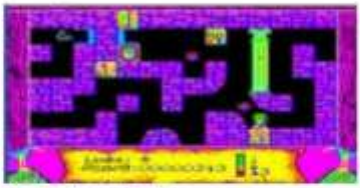
Staffordshire
ST11 9BA
Tel: 01782 398143
Email: rich@rwapservices.co.uk
Website:
www.rwapsoftware.co.uk
or sellmyretro.com

QL Pengi by Jochen Merz



The Lost Pharaoh by Talent

QL Hopper by Microdeal

The King by Microdeal

Cuthbert in Space by Microdeal

Working to safeguard the QL for the future www.rwapsoftware.co.uk

- Fixed unnecessary on screen grid redraw when moving to and from project and library.
- Scale increment and decrement no longer wraps.
- Gerber import now works with Ultiboard files and ignores 'G Codes'.
- Screen saving memory allocation moved from SBasic to assembler.
- Correct shutdown procedure on lack of memory.

SuperForth and Reversi

The SuperForth + Reversi package is now on the Programming Languages page on my website at http://www.dilwyn.me.uk/language/index.html

Just scroll down to SUPERFORTH to download it. The manual can be downloaded separately, as it is about 2MB in length (a PDF file).

This Forth language package for the QL is a full '83' standard – I presume Forth users will know what that means.

I am grateful to Rich Mellor for his work in preparing the package and securing permission to re-release this package.

QemuLator Special Version Of Unzip

Again, thanks to Rich Mellor, I have been able to add a special version of QDOS unzip specifically for QemuLator emulator users.

If you are using the QL emulator called QemuLator for Windows by Daniele Terdina, here is a special version of the Unzip package which can be run direct from a Windows directory without having to worry about normal QL executable job headers, and this gets around the problem that you must already have the QL Unzip to be able to unzip a copy of QL unzip. This solution works for QemuLator for Windows ONLY. Rich Mellor kindly supplied this, along with the following notes: "You will of course need to use a tool on your PC (most Windows versions have this built in nowadays) to right click the downloaded file and extract it to your PC's desktop. Now the basic instructions as to point q-emulator's mdv1_ to the folder unzip is to Start q-emulator, Left click on the left hand microdrive slot at the bottom of the display to set up mdv1_, Select 'attach a directory' - point this to the unzip folder created from above on your PC desktop."

New Text Adventure game ported to QL

Marcos Cruz writes:

“I've finished a port from ZX Spectrum, a text adventure in Spanish: Asalto y castigo (Assault and punishment).

The original author is an experienced writer of interactive fiction in Spanish (one of his text adventures, Survive, was written first in English and then translated).

The original program I've ported was written by the author for ZX Spectrum as an experiment, a challenge to prove that a good story, a good atmosphere and good texts are more important than the power of the programming language and the machine. I think he succeeded. Besides, this adventure is a "prequel" of another work of his, El trono de Inglaterra (The throne of England).

The original was written in compiled Sinclair BASIC. The author wrote also versions for Locomotive BASIC (Amstrad CPC) and Blassic (a classic BASIC interpreter for Windows and Linux).

I rewrote the code in SuperBASIC and it has been tested with Q-emuLator and QPC2. My goal was just to translate the code and of course improve the way it works internally, but not to change the game or the plot. Nevertheless I did two little improvements in the way two puzzles can be solved.

The game was announced in the Spanish text adventures forum, where the QL is almost unknown, and some people tried it with emulators.

The code itself (variables, procs...) is in English and it's clear, and the comments are bilingual, so it wouldn't be difficult to write an English version. But the original texts are very good, almost literary, and such a translation is unfeasible with my English."

The game is available to download from http://programandala.net/es.programa.asalto_y_castigo.ql

Screen dump from programandala.net

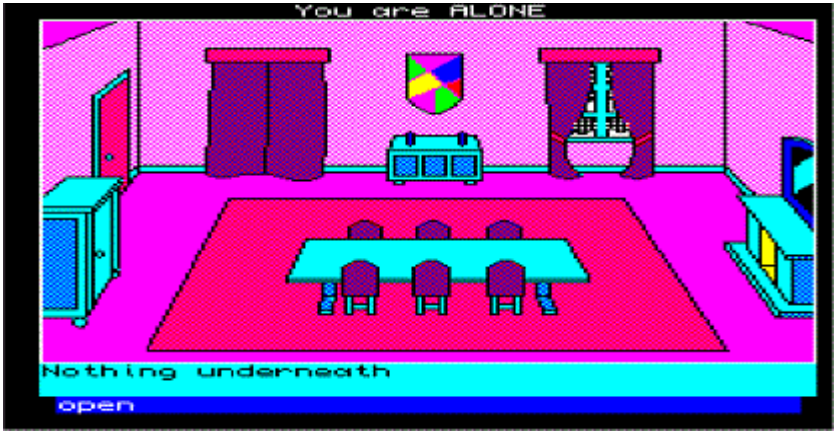
RWAP Software News

We have now secured the re-release of further Sinclair QL software titles and can supply these for use with emulators or on 3.5" disk:

- Vroom by Pyramide (a Formula 1 Racing car game)
- Mortville Manor by Pyramide (an atmospheric graphic adventure)
- Black Knight by Francois Lanciault (a strong chess game, needing 640K)
- Double Block by Francois Lanciault (a Tetris clone)
- Night Nurse by Microdeal (a simple arcade game)
- The Lonely Joker by Jochen Merz (a collection of patience card games)

QL Vroom screen dump

Each of these are available for £5 each (except for Mortville Manor, which costs £10).



Screen dump from Mortville Manor

We also now have a small number of SuperHermes, Hermes and Minerva upgrades in stock (thanks to Tony Firshman).

Finally, if you are also interested in the ZX81, we have released the ZXPand - an SD card interface with configurable 32K RAM pack for instant loading and saving of programs.

Ser-USB News

This device is available from both Memory Lane Computing at http://www.memorylanecomputing.com/shop.htm and SellMyRetro.com, but such has been the sales of the units that at the time of writing only 3 units remained and there was a three week wait for supplies of further units.

It is now available in three distinct forms:

1. Standard QL version with driver on 3.5 inch floppy disk at £125, including power supply and cable,
2. An optional driver on a plug-in ROM cartridge for an extra £19,
3. Or a combined package of both the standard Ser-USB and ROM for £135.

Ser-USB ROM cartridge

The Ser-USB unit

Inside the Ser-USB

QL-Like Designs

In keeping with a current trend towards 1980s retro-styling, several companies are releasing modern computers with a gesture towards computers like the QL. Thanks to Urs König, here are some examples.

Californian computer company Cybernet has given its ZPC-D5 a very QL-style look, with its slim keyboard containing all the electronics in a case just 2.3cm high, and an optical drive where the QL microdrives were on a QL.

More details at http://www.cybernetman.com/en/all-in-one-pc/Keyboard-pc/

Urs writes:

This week a German news portal points out the similarities of the physical design compared to the 1984 Sinclair QL, see

http://www.elektronikpraxis.vogel.de/themen/hardwareentwicklung/mikrocontrollerprozessoren/articles/322006/

The article is in German, but quite short and easy to translate using copy and paste to Google Translate, for example, for readers who do not speak German.

Other such designs for a 1980s style all in one computer with all the parts in one box (in this case in the keyboard) include the Asus EEE Keyboard PC, announced in January 2009. http://www.engadget.com/2009/01/06/asus-eee-keyboard-revealed/

QL Today DVD

For those people who are not QL Today readers, all subscribers to volume 16 will receive a free DVD of the complete QL Today archive. That's sixteen years for the price of one! The back issues were scanned by Rainer Wolkwitz, so QL Today now has copies of all back issues as PDFs, allowing Jochen to release them as a DVD once he has decided which format to use.

The current issue of QL Today at the time of writing.

Postcodes Program

A new program which shows the location and details of the first part of a UK postcode address. Can work out the approximate distance from one to another, display latitude and longitude, and can also show an approximate location on a map of the UK.

The program was written by Geoff Wicks and Dilwyn Jones and is available to download from the new Just Words! website at http://www.gwicks.net/justwords.html

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FiFi II File-Finder - Extremely useful!	[V4.31]	**EUR 14,90**
FiFi II Upgrade from Fifi Version 3 or older	[V4.31]	**EUR 9,90**
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QSpread2003 Upgrade from Version 3 and older	[V4.04]	**EUR 14,90**
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EasyPTR Version 4 - Upgrade from earlier versions	[V4]	**EUR 39,90**
QDT - QL Desktop program		**EUR 59,90**
QMENU Version 8 - with new, printed Manual	[V8.02]	**EUR 24,90**
QMENU Version 8 - Update from earlier Versions, also with printed manual		**EUR 17,90**
QMENU Version 8 - New/Update for QL Today subscribers, with prtd manual		**ONLY EUR 14,90**

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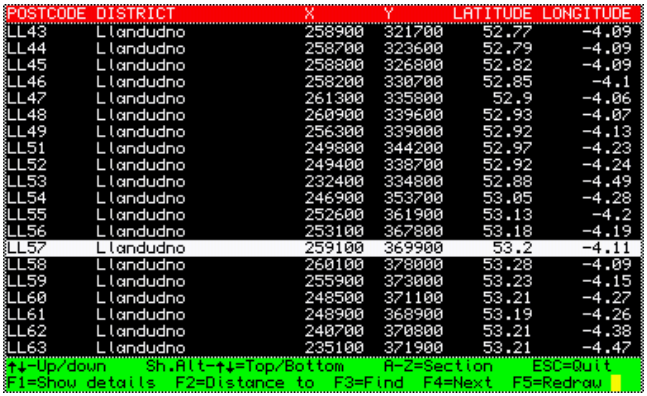
- and from all other countries in EUR with IBAN and BIC to account Jochen Merz, Deutsche Postbank AG, IBAN: DE21 3601 0043 0611 1004 37 / BIC: PBNKDEFF 360
- UK customers can pay in £ (convert EUR prices above to £ by multiplying with 0.90) to Jochen Merz, Account 83795395, Citibank UK, Sort code 30-00-45 or send cheques in £ - no fee for UK sterling cheques!
- US customers can pay in US$ (convert EUR prices above to US$ by multiplying with 1.48) - no fee for US cheques in US$!

Cheques payable to Jochen Merz only!

Price list valid until 30th of Sept. 2011

Here are some sample screens from the program:

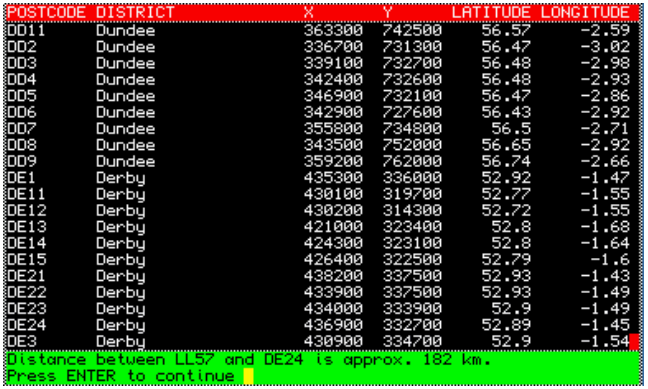


POSTCODE	DISTRICT	X	Y	LATITUDE	LONGITUDE
LL43	Llandudno	258900	321700	52.77	-4.09
LL44	Llandudno	258700	323600	52.79	-4.09
LL45	Llandudno	258800	326800	52.82	-4.09
LL46	Llandudno	258200	330700	52.85	-4.1
LL47	Llandudno	261300	335800	52.9	-4.06
LL48	Llandudno	260900	339600	52.93	-4.07
LL49	Llandudno	256300	339000	52.92	-4.13
LL51	Llandudno	249800	344200	52.97	-4.23
LL52	Llandudno	249400	338700	52.92	-4.24
LL53	Llandudno	232400	334800	52.88	-4.49
LL54	Llandudno	246900	353700	53.05	-4.28
LL55	Llandudno	252600	361900	53.13	-4.2
LL56	Llandudno	253100	367800	53.18	-4.19
LL57	Llandudno	259100	369900	53.2	-4.11
LL58	Llandudno	260100	378000	53.28	-4.09
LL59	Llandudno	255900	373000	53.23	-4.15
LL60	Llandudno	248500	371100	53.21	-4.27
LL61	Llandudno	248900	368900	53.19	-4.26
LL62	Llandudno	240700	370800	53.21	-4.38
LL63	Llandudno	235100	371900	53.21	-4.47

↑↓-Up/down Sh.Alt-↑↓=Top/Bottom A-Z=Section ESC=Quit
F1=Show details F2=Distance to F3=Find F4=Next F5=Redraw

POSTCODE : LL57
DISTRICT : Llandudno
LATITUDE : 53.2
LONGITUDE : -4.11
X (metres) : 259100
Y (metres) : 369900

Press ENTER to return to the list



POSTCODE	DISTRICT	X	Y	LATITUDE	LONGITUDE
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DD2	Dundee	336700	731300	56.47	-3.02
DD3	Dundee	339100	732700	56.48	-2.98
DD4	Dundee	342400	732600	56.48	-2.93
DD5	Dundee	346900	732100	56.47	-2.86
DD6	Dundee	342900	727600	56.43	-2.92
DD7	Dundee	355800	734800	56.5	-2.71
DD8	Dundee	343500	752000	56.65	-2.92
DD9	Dundee	359200	762000	56.74	-2.66
DE1	Derby	435300	336000	52.92	-1.47
DE11	Derby	430100	319700	52.77	-1.55
DE12	Derby	430200	314300	52.72	-1.55
DE13	Derby	421000	323400	52.8	-1.68
DE14	Derby	424300	323100	52.8	-1.64
DE15	Derby	426400	322500	52.79	-1.6
DE21	Derby	438200	337500	52.93	-1.43
DE22	Derby	433900	337500	52.93	-1.49
DE23	Derby	434000	333900	52.9	-1.49
DE24	Derby	436900	332700	52.89	-1.45
DE3	Derby	430900	334700	52.9	-1.54

Distance between LL57 and DE24 is approx. 182 km.
Press ENTER to continue

Java QL Emulator?

A posting on the QL Forum recently by Rich Mellor and Chris Zeinstra suggested there might be merit in getting a QL emulator to run as part of a Java based 68000 emulation system. For example, I've long since wanted to see something like this done, as I used a ZX81 emulator in this way via a website a while back. Rich Mellor wrote "The main benefit of a Java based emulator, so far as I can see, would be being able to add it to websites about the QL, so that people could try out different games / software." This would presumably include Rich's QL Wiki site, where visitors could get a time-limited taster of the various QL software listed there.

A quick internet search reveals that there are a few 68000 Java based processor emulation systems out there, so someone with some knowledge of QDOS and 68000 code might be able to adapt one of these.

Sources are available for several existing QL emulators along with commented QL ROM disassembly's to help get things going. If anyone reading this is able to assist with this please do get in touch with Rich Mellor or myself to see if we can get such a project off the ground.

Corrections – Back 2 The QL

On page 24 of the last issue I called Lee Privett's website 'Back 2 The QL'. Apologies to Lee - as should have been obvious from the rest of the article, it's actually called "I Want 2 Learn 2."

As hinted in the last edition of QUANTA, there has been recent media interested about a group of people lead by David Braben of Elite (Space Trading Game) fame who have formed an organisation called RaspberryPi, their purpose and I quote;

> *"The Raspberry Pi Foundation is a UK registered charity (Registration Number 1129409) which exists to promote the study of computer science and related topics, especially at school level, and to put the fun back into learning computing."*

Aimed squarely at younger people to generate the next designers of future system, so why the media interested and what does it have to do with the QL?

The first device they have demonstrated is interesting because of several things, first the provisional specification contains

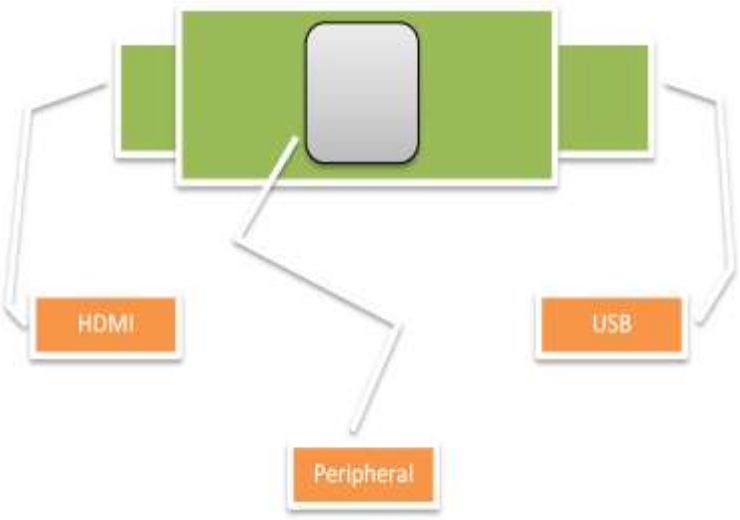
700MHz ARM11 processor with 256MB of SDRAM, composite and HDMI video output, USB 2.0 input and storage through a SD/MMC/SDIO memory card slot. Initial software will be open and quite likely to be Linux based.

So on initial indications this computer could run uQLx or some other Linux based QL emulator, but it may even be possible to put in proprietary software directly, however that is for the future and if it does make the light of day (later this year according to their website http://www.raspberrypi.org/).

So what I hear you say, there are already computers with better than this specifications that run existing emulators! This is true, but there are ***two*** more things I have yet to report, the first is the size of this device, it is

currently shown to be around the same size as a regular USB stick with the HDMI port at one end and the USB port at the other.

It also has provision for various add-ons directly mounted on to the circuit



board and the image on the website shows a camera (like those used in web cam setups).

Currently being offered in to flavours, Model A and Model B, (reference to the now retro machine sold by the BBC and a poor substitution for the QL), the difference mainly being memory and the addition of a LAN connection.

This device is so small you could fit it in to a QL case, you could even fit half a dozen of them inside a QL case or any keyboard for that matter. It is based around mobile phone technology and its power consumption is around 1 watt making it possibly portable. The uses for this device seem endless, it's a very exciting prospect, so let us hope it does come to fruition later this year.

The website currently has stated that the boards are in production and there is a competition for someone to design a logo for future use.

The second thing to report? Oh yes the price, currently reported to be around £15.

HOW LONG DID IT TAKE? George Gwilt

Early this afternoon the postman delivered some mail. This included two interesting items. They were the latest editions of QUANTA and QL Today. I opened the QUANTA MAGAZINE and saw inside Page 3 an imposing black bordered rectangle. This contained the information that the COPY DATE for JUNE/JULY 2011 was 5th July 2011. A glance at my watch told me that today's date was 4th July. Blimey! This does not give much time for thinking up, writing, correcting, re-correcting and sending off an article. Since time is, as they say, of the essence I thought I might give a short explanation of how I myself work out how long programs take to run.

It is usual for programmers to use DATE for this purpose. DATE is the SuperBASIC function returning the number of seconds that have elapsed since the beginning of 1961. To time a program all you need to do is record the value of DATE at the start and subtract this from its value when the program ends. However, this gives the answer in no more finely divided time interval than seconds. Furthermore, it can give an answer up to a second out either way. Thus, if the program starts just after DATE has been altered and ends just before an alteration to DATE the calculated time will be nearly one second below the actual elapsed time.

A more accurate measurement can be obtained by using the computer's internal timing device. The QL has an interrupt each 1/50th or 1/60th of a second depending on its location. In the UK it is 1/50th of a second that is used.

Let us call that fraction of a second, which is either 1/50th or 1/60th, a tick. If we were able to count the number of ticks that had occurred while a program is running we could tell the elapsed time at least 50 times as accurately as we can by using DATE.

The Timer

I use such a timer.

My timer, ROUT, consists of just two instructions.

```
ROUT    ADDQ.L   #1, $DC(A6)  ; Add 1 to the counter
        RTS
```

The routine, ROUT, has to be linked into the polled list so that it will be called at each tick. When the code is called by the operating system A6 points to the system variables. You will see, then, that I have used the relative address $DC for the counter. This is because the four long words at the relative address $D0 are designated as SYS_FPU and are ear-marked for programs allowing use of a Floating Point Unit (FPU) where one exists. For example both Q40 and Q60 have an FPU. Since I was the person who wrote the programs for the FPU I know that, so far at any rate, only the first three long words are used for that purpose. So I know that the long word at relative address $DC in system variables is available for use as a timer.

Using the Timer

To time a process I set

```
tme=PEEK_L($280DC)
```

at the start and

```
PRINT (PEEK_L($280DC)-tme)/50
```

at the end.

Linking The Timer

In order to set the timer going it has to be linked into the polled list. The code to do that is:

```
LEA         LNK,A0          ; Address of link
LEA         ROUT,A1         ; Address of routine to be linked
MOVE.L      A1,4(A0)        ; Set address of ROUT in the link
```

```
MOVEQ   #MT_LPOLL,D0        ; Link ..
TRAP    #1                  ; .. it in
MOVEQ   #0,D0               ; Return ..
RTS                         ; .. to BASIC
LNK     DS.L    2           ; Link to the next routine
ROUT    ADDQ.L  #1,$DC(A6)  ; Add 1 to the counter
RTS
```

All you have to do is assemble this code and LRESPR the result.

Finally

I would be interested in comments on this timing device. Indeed I have a few myself which I may divulge at a later date.

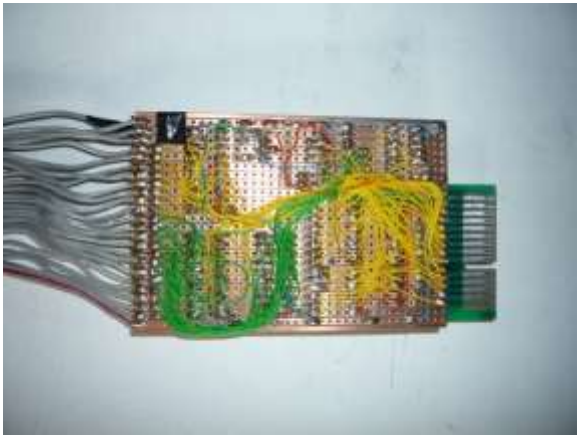
SER-USB++ AND Q-BUS — Adrian Ives

Adrian Ives messaged the QL-Users board recently with some news about two new projects he is currently working (tinkering) with, he states quite clearly that this is still in the very early stages, code-named Q-BUS and Ser-USB++

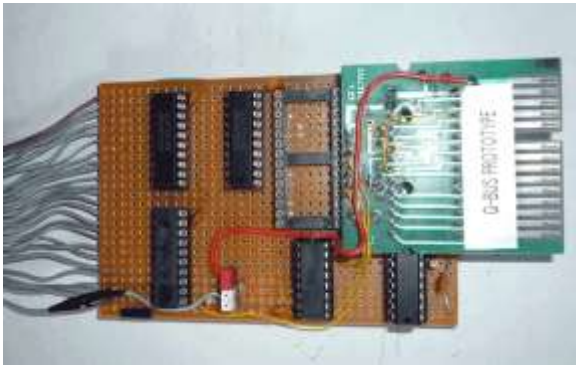
Adrian states that;

“The Ser-USB++ would use the same core driver (with a different Hardware Abstraction Layer slotted in) and would be targetted solely at Base QLs running QDOS versions up to and including Minerva. It will use the ROM port for its connection and a microcontroller (essentially another IPC outside the QL, but 100s of times more powerful than the QL itself) to provide a standard command interface that will isolate the QL from the underlying protocols of the storage devices that it controls.”

He also went on to say that the SER-USB++ interface will be built upon a new base peripheral called Q-BUS which will plug in to the QL ROM port. The prototype has been constructed using discrete circuits, but will eventually be replaced with a single PLD.



Adrian went on to explain to me that Q-BUS actually provides an addressable I/O bus for the QL. This would mean that anything could be connected to it - from relays and LEDs (with the right driver circuits) to UARTs and hard disk controllers. In fact, any device that can communicate using an 8 bit data bus with TTL logic levels.



Peripherals that require DMA or interrupt channels are, unfortunately, not possible because the ROM port does not expose the 68008 interrupt

lines. One other thing the Q-BUS cannot be used for is to connect expanded memory, although with some bit banging, serial EEPROMs could be supported fairly easily.

Adrian welcomes comments about this current project and requested for us to publish his e-mail address so that anyone who is interested (or has feedback/suggestions) knows how to get in touch.

Memory Lane Computing Ltd sales@memorylanecomputing.com

QUANTA HELPLINE — Dilwyn Jones

Members wishing to submit helpline requests via email can use the email address helpline@quanta.org.uk or if you prefer to use traditional post, please send the helpline request to me via the address printed inside the front cover of the newsletter.

Obviously, we cannot guarantee to answer every query we receive, but we will do our best! Where we have been unable to answer the queries, we may print the help request as an open request in the newsletter to ask if any of the readers can come up with a solution. And, of course, if readers feel that they have a better solution than we came up with, or would like to correct any errors we make, please write to us!

Q. We are forever being told to make backups. Which is the best program to use to backup my QL files?

A. There are quite a few QL backup programs available from my website at http://www.dilwyn.me.uk/backup/index.html as well as some backup programs in the Quanta library. I don't have a particular favourite to recommend, as I have only ever used Winback. All presumably have their merits and some work better than others on some particular types of QL systems. All of them date back to at least 2003 (some even older than that) so it is quite possible that some may fail to work properly on modern systems.

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I use my own very simple QL backup routine as I use QPC2. This emulator uses a QXL.WIN filing system, so to make a backup, just copy the QXL.WIN file onto a CD or DVD in Windows. Simple. Done.

If you would like the basis of a backup routine to experiment with to develop your own backup routine, try this one. It will copy all files from a given drive onto another drive, which could be a separate partition on a Qubide drive for example, or if you use a computer with two hard disk drives, it makes it possible to make a complete backup (directory names and all) onto the second hard drive. Equally, it would work with ED disks containing directories and a lot of software – you could make a backup copy on a second disk in drive 2.

```
100 REMark copy entire disk, subdirectories and all
110 CLS : CLS #0
120 INPUT #0,'Copy from which drive > ';dr$
130 INPUT #0,'Copy to which drive > ';tdr$
140 Extended_DIR dr$,''
150 :
160 DEFine PROCedure Extended_DIR (drive$,directory$)
170   LOCal loop,ch,d$,fp,n$
180   ch = FOP_DIR (drive$&directory$) : REMark open channel to directory
190   IF ch < 0 THEN RETurn : REMark unable to open directory
200   fp = 14 : REMark file position in directory for filename
210   REPeat loop
220     BGET #ch\fp : IF EOF(#ch) THEN CLOSE #ch : EXIT loop
230     GET #ch,d$ : REMark get directory entry name
```

```
240     IF LEN(d$) > 0 THEN
250       REMark a filename length of 0 may be a deleted
file
260       BGET #ch\fp-9 : REMark file type byte
270       IF CODE(INKEY$(#ch)) = 255 THEN
280         REMark need to create this directory in desti-
nation
290         PRINT'  Creating ';d$;'...' : MAKE_DIR tdr$&d$
300         REMark follow the directory tree
310         Extended_DIR drive$,d$
320       ELSE
330         REMark next line can be used to list all files
340         PRINT'Copying ';d$;'...' : COPY dr$&d$ TO
tdr$&d$
350       END IF
360     END IF
370     fp = fp + 64
380   END REPeat loop
390 END DEFine Extended_DIR
```

The program uses Toolkit 2 extensions such as FOP_DIR to open channels to the directory of a disk, and other extensions such as GET to fetch strings from the directory and BGET to position the directory file pointer and handle byte values. On level 2 filing systems it also needs the MAKE_DIR extension to recreate directories on the backup drive.

Importantly, the program shows how to step through a QL filing system's directory one file at a time (each entry is 64 bytes long), read the filenames and check if what it is reading is a directory name.

Line 180 opens a channel to the source drive, e.g. to WIN1_ . The

FOP_DIR function returns a value to the variable ch which, if positive, is the channel number opened. A negative value might mean either an error or the end of the directory has been reached, so the procedure ends.

Line 200 sets a start offset of 14 for the variable fp, which starts us going from the 14th byte of a directory, and line 220 tries to position the file pointer there, or returns if we have strayed beyond the end fo the last entry in the directory. The structure of the 64 byte directory is shown below, but for now just accept this is where the filename entry starts, at an offset of 14 bytes from the start of a directory entry. Of course, if we have gone beyond the end of the file we give up and return.

Line 230 then tries to fetch the filename fo this file from the directory entry into the filename string d$. If this returns a null string (a file with no name) it usually means that the particular entry in the directory might be a deleted file, for example. If we get a blank name, the IF clause from line 240 to 360 is skipped and we try to move on to the next directory entry – line 370 adjusts the file pointer variable fp.

If this is a valid file or directory name, line 260 fetches the file type byte to check if it is a filename or directory name. If a directory name, it would have a value of 255 on most systems, although this may vary on Thor computer systems which used a different value for a directory entry.

If it was a value indicating a directory name type (255), line 310 tries to create a directory of the same name on the destination drive, then the routine recursively calls itself with details of the new directory. Don't worry too much if you do not know what the term Recursion means – recursion has been known to give experienced programmers a headache!

If it wasn't a directory name, it must be a filename, so line 340 copies the file from the source directory to the destination (backup) one.

The program then continues to step through the directory one entry at a time until all is done. Obviously, since this is a full backup, there must be at last as much free space on the backup drive as there was on the original.

Here is the list of entries in a standard 64 byte file header. What I have

referred to above as opening a channel to the 'directory' using FOP_DIR is really just a list of the 64 byte header which each file has.

QDOS file headers consist of a 64 byte file data block in the directory.

Filenames can be up to 36 characters long (not including the drive name).

Executable files have file type 1 and an associated dataspace value, while ordinary data files (including BASIC programs) are file type 0. The offset values from the start of each 64 byte header are given in hexadecimal values preceded by a '$' character, with the decimal equivalent in brackets under it for those not familiar with hexadecimal numbers.

OFFSET LENGTH DESCRIPTION

$00 long file length (in bytes)

(decimal 0)

$04 byte file access key (not implemented on original QLs)

(decimal 4)

$05 byte file type

(decimal 5)

0 = a data file or SuperBASIC program

1 = an executable file

2 = SROFF relocatable object file

255 = directory

3 = Thor directory

4 = font file in 'The Painter'

5 = pattern file in The Painter

6 = 4 colour mode compressed picture in The Painter

11 = 8 colour mode compressed picture in The Painter

$06 8 bytes if file type is an executable file (type 1), the first long (decimal 6) word contains the default dataspace size of the program in bytes

$0E word length of filename (decimal 14)

$10 36 bytes characters of the filename (decimal 16)

$34 long file update date (decimal 52)

$38 long file reference date (decimal 56)

$3C long file backup date (decimal 60)

Hopefully, using the above table you will be able to relate what the program is doing to what is where in each file header.

This is just a very basic and short backup program which blindly copies everything it comes across – hopefully it will give you the basis of an idea how to write a backup program to cater for your needs. But wouldn't it be better (and faster!) if it only had to copy files which had changed since the date of the last time you made a backup?

Well, with a little modification, it should be possible to get it to do this!

Looking at the file header table above, we can see that towards the end of the 64 byte header there is a set of 'date' values. Most QL systems imprint the date the file was last changed in the long word 52 bytes on from the start of the header – it is referred to as the 'file update date'. This value is a 32 bit number which is the same value as the clock setting on a QL when the file was updated, in other words, like the value you get from the DATE function, which in turn is the number of seconds since the start of 1961, which is how the QL clock works, the date being the number of seconds which have elapsed since the start of 1961. From this, in turn, you can work out how long the QL clock can keep working, since it is limited by the maximum number of seconds a 32 bit integer can hold starting from the beginning of 1961, although you have to remember that it depends on whether the system concerned uses signed integers or unsigned ones.

Anyway, back to reality and we can see that by reading the file update date of the original file (the source file) and then reading the same information from its existing backup if there is one, we need only copy the file if it has been changed since the original file's update date. So we could surround line 340 with a test of both update dates and if the source file's value is higher than the backup we could use an IF statement along the lines of IF source file update date is greater than backup file update date THEN COPY the file.

Backup programs which take a full backup on the first run, and then backups of files altered or created since then are called Incremental Backups. Winback is an example of this – it lets you make incremental backups onto many floppy disks, even splitting large files in sections spanning more than one disk, although to be fair it is a LONG time since

I last used that facility.

In practice, the act of making a backup of a file may update the value of the update date, making this not as easy as it appears. One answer is to make use of the backup date entry in a file, setting this in the source file when a backup copy is made so you only have to check a file's update date and its backup date to check if you need to recopy it. That, my friends, is a little job for you to tinker with to keep you busy until the next issue!

The important thing is that backups are made regularly. For a home user, one backup a week might suffice (if you are not a heavy home user who does not accumulate too much important data during a week), whereas in business making backups is often if not usually a daily essential. After all, if your computer fails or gets stolen or other such mishap and all your records are on computer, you have basically lost all company information since the last backup. Businesses will also store a copy "offsite" e.g. your boss takes it home with him/her to make sure there's a second backup copy in another location, so that should something happen such as a fire at your office which leaves you without your precious data backups, you can always get your boss to bring in those backups he/she kept safely at home (didn't they….?) to help get you up and running in a temporary office.

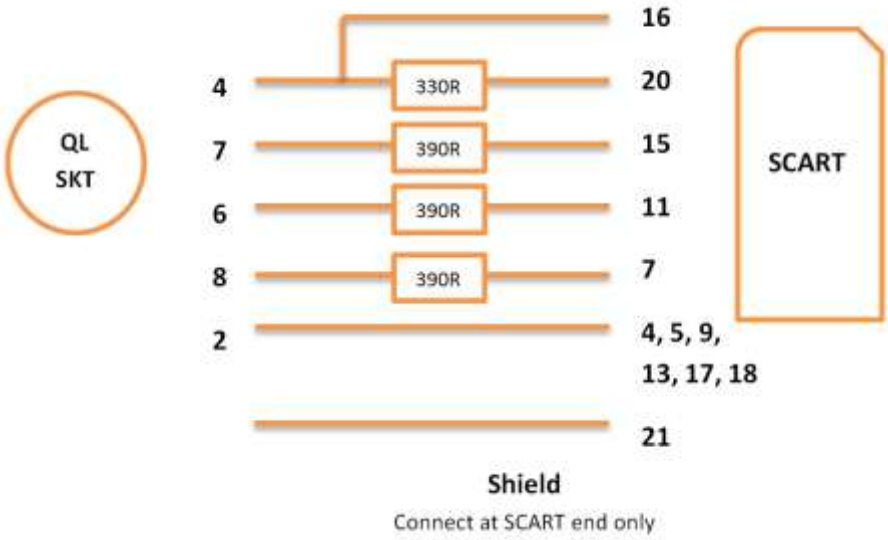
QL TO RGB LEAD REVISITED — Lee Privett

I thought it a useful time to revisit the video connections of the black box QL as my previous experience and my returning experience has been varied. In connecting up the QL to the television my first attempts were poor, relying on the coaxial aerial lead method. The signal displayed on the TV (tube based) was far from acceptable so I opted to construct a QL to RGB lead, in the back of my mind there was something nagging that it wasn't a straight forward process. A bit of research later I found several circuits appertaining to correctly set the appropriate

voltages from the QL to a typical SCART RGB input. I opted for a link to a website I found on a post in the QL forum (link below)

http://www.fruitcake.plus.com/Sinclair/Spectrum128/SCARTCable/Spectrum128SCARTCableQL.htm

This seemed to me the most plausible method and with a trip to Maplin Electronics to get some cable, plugs and resistors, I duly set about constructing the lead. I have reproduced the circuit used from the website in a simpler form for clarity.



Now I will not mention that I managed to get my green and blue signals crossed, but having constructed the lead I connected it up switched everything on and had a decent enough display (albeit blue where it should be green) to see what I was doing. Not being satisfied with that however, I wanted to see if it was possible to use modern day monitors with the QL, although I knew there was always going to be a problem with the over scan output of the QL's quirky signals. I was sure there could be way of converting the RGB in to the VGA input used by the LCD monitors today. The QL Forum contained examples of a kit that people had some measure of success, but I was looking for a ready built solution, and I found one.

SINCLAIR QL ON A PC MONITOR

Dr John Sim

Home computing in the 1980s was just starting to bloom. After the huge impact of the ZX81 the public realised that science fiction of a computer in every house was going to be a reality. It was a very inexpensive means to have what was undoubtedly the future in your living room.

But one of the compromises to keep costs down, and was the case with all home computers of that era, was to use a TV as a monitor. It was a compromise that worked two ways; for the manufacturer they could keep complexity low, and to the consumer they didn't have to buy a very expensive monitor.

Viewing video at 25fps (frames per second) you will notice flicker, but at 50fps the picture is steady. This means for a flicker free picture you must use at least 50fps, twice the information of 25fps. How can you still keep the same information load of 25fps but the picture quality of 50fps? Television has a trick to make it look better than it is, and it's a process called Interlacing.

Taking advantage of the human eye's persistence of vision it was found that you need only send half the picture in every frame, Figure 1. Updating every second line in each "field" of the frame to build up a picture it's possible to give the impression of a full frame picture at 50fps but with the information load of a 25fps picture. It's the TV picture that we've all grown up with!

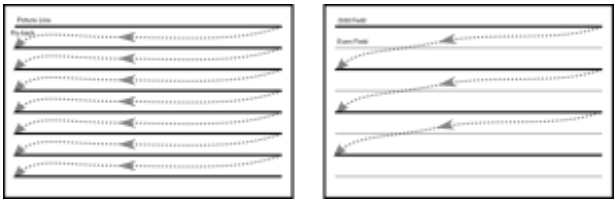


Figure 1. Progressive video, left, and interlaced, right. Note only half the lines are updated every frame on interlaced video reducing the information load by half.

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We at QL Today are moving into our 16th year! The upcoming issue 1 of Volume 16 will come with a DVD (included in the price) containing all previous issues of QL Today in PDF format - from Volume 1 to Volume 16, English and German (as long as German ones were produced). Don't miss it - by subscribing for Volume 16, you get 15 complete Volumes from the past to read as well!

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As home-computers evolved the manufactures desired to break in to the lucrative business sector who would happily buy a dedicated monitor with the funds they'd saved on the "PC". So as more advanced variants of those home computers were produced an additional port was added to allow connection to a monitor.

These allowed for RGB (Red, Green, Blue) signal lines to be connected directly to the display and bypassing the composite video that home computing had used to this point. Simply put, a composite video signal is as the name suggests a mixture of all RGB signals in one video signal. Composite video falls down where the picture is busy with sharp changes in colour and is worst with text where characters become mushy and noise appears on the edges. Keeping the RGB signals separate gives a better picture and that's exactly the output from Sinclair QL we're interested in.

Modern PC monitors don't understand interlaced video. They don't need to as the lowest video mode they'll see is VGA, a non-interlaced format. In order to display interlaced video on a PC monitor we need a device which will take that video and produce non-interlaced or "progressive" video. Progressive being the term now in use when video isn't interlaced. To that end we have a converter which will take the interlaced video and de-interlace it to a progressive format. We call it the "Simple Video Scalar" as its function is to de-interlaced interlaced video giving compatibility with a PC monitor.

The Simple Video Scalar.

The Simple Video Scalar is a device which will take as an input SCART interlaced video and output on a VGA connector a de-interlaced version of the input. It is then compatible with most PC monitors to allow display of standard video from a variety of sources. Both composite and RGB SCART input can be used, with the converter auto-detecting the presence of RGB SCART through the pin-16 function.

For use with the Sinclair QL we need the RGB SCART lead (see other article Ed.). This gives the RGB lines for colour, but also the video line

that we must have for correct timing. Since the timing output of the QL is set for a monitor it requires adjusting to allow for use with the converter, and hence why the make-up of the lead is essential.

Inside the converter is performing a two-stage conversion process, Figure 2. Firstly we must convert the input video to a digital format, one which we can then de-interlace. This allows us to also adjust the video connection type on the input too as we can select, in our software, from composite, to RGB and in some cases we can also take component video. For the Sinclair QL we have it set for RGB.

Second stage is the actual de-interlacing. Working with the digitised video information and a bit of memory the number of lines per frame is doubled. Hence why de-interlacers are also known as line doublers!

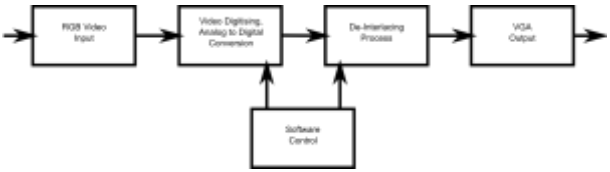

Figure 2. Process performed by the Simple Video Scalar.

The Sinclair QL also uses a split screen mode which takes advantage of an area of the screen known as the “over scan” area which is not normally visible. There are no real standards to describe how much over scan there should be and it varies from manufacturer to manufacturer as to how much is displayed. Essentially it’s an area for the tidy start and finish of a line to ensure that there no black boundaries to a picture. With the QL this area is utilised to the maximum which created a problem for our Simple Video Scalar; it was starting the conversion process too late to show the left edge. With a loan of a QL we were able to make adjustments to regain as much of this over scanned area as possible.

Conclusions.

When the Sinclair QL was launched there were monitor options, but the-

se were typically expensive and most home users would opt to use a TV, as had been the norm. Today monitors are inexpensive but they lack the compatibility to operate with the QL as they won't work with interlaced video. A means of converting the interlaced video from the QL to a VGA type connection that modern monitors use is required, and that is exactly what the Simple Video Scalar will do.

Figure 3. The Simple Video Scalar.

Using a process called de-interlacing the Simple Video Scalar, Figure 3, will take the interlaced RGB video using the type of lead made by Lee Privett and convert it for use with a VGA monitor. To improve the compatibility with the over scan mode (as used by the Sinclair QL - Ed.) we can offer the converters with a specific tweak pre-programed in to the converter too

J.S. Technology Ltd.

www.js-technology.com Tel No: 01294 471468

Important Information Editor

The next few pages contain relevant and required reading for all QUANTA members, notes from the chairman will be self explanatory and I urge all to read carefully, it is your QUANTA that is being considered for changes here and essential that you understand the consequences.

CHAIRMAN'S NOTES Sarah Gilpin

The Committee, together with Geoff Wicks and Rich Mellor, have met and discussed changes to the Constitution of QUANTA in line with proposals put forward at the Annual General Meeting. Our thanks go to George Gwilt and Malcolm Cadman for their contributions in this project.

A draft of the proposed new issue of the Constitution is in the magazine pages too. To enable members to understand the changes, the draft shows clearly where and what changes have been made to each clause and also where no change has been required.

The reasons for the changes are many. Firstly to clarify some ambiguous points in the old Constitution which have arisen through many minor amendments. Secondly to include in QUANTA's remit all the varieties of QLs and their emulators. Finally provision has been made for the use of electronic and alternative communication systems and other technological advances since 1984. At the same time we have reviewed all the clauses in the Constitution for compliance with current legal practice.

PLEASE READ THE DRAFT AND SEND YOUR COMMENTS TO COMMITTEE BEFORE 31ST DECEMBER 2011.

Comments should be sent either by letter to the Secretary, address at the front of the magazine, or by email to:

committee@quanta.org.uk.

Comments through a third party will not be taken into consideration.

The finalised Constitution will be included as a Special Resolution with the notice for the Annual General Meeting 2012 in February 2012.

The Committee wish to thank Geoff and Rich for their expertise, time and commitment to this project. Their input has been most valuable and much appreciated.

PROPOSED CHANGES TO THE QUANTA CONSTITUTION

1 TITLE

1.0 The Association hereby constituted shall be known as QUANTA.

2 OBJECTS

2.0 The objects of QUANTA shall be:-

2.1 The dissemination of information in connection with the Sinclair QL and THOR computers and any other computer with an operating system compatible therewith (collectively referred to as the QL).

Amend clause 2.1 to make it apply to all QLs, emulators and clones.

NEW 2.1 The dissemination of information in connection with the Sinclair QL and any other hardware or software which runs an operating system compatible therewith (collectively referred to as "the QL").

2.2 The promotion of the QL generally.

Amend clause 2.2 to actively state how QUANTA should promote the QL.

NEW 2.2 The promotion of the QL generally, including the development of new QL related hardware and software.

2.3 The provision of a software library for the use of its members.

2.4 The encouragement and assistance of members to establish independent regional subgroups.

Amend clause 2.4 to include overseas groups and introduce new clause 2.5

NEW 2.4 The encouragement and assistance of members to establish independent regional and international subgroups.

NEW 2.5 To strive to form links with other computer groups relevant to the QL.

3 AFFILIATION

3.0 If the members so decide, QUANTA shall be affiliated to the Association of Computer Clubs and to other QL associations abroad.

This clause will be deleted as it is no longer relevant, but see new clause 2.5 above - all other clauses will need to be renumbered accordingly

4 MEMBERSHIP

4.0 Except as provided in 4.2, 4,3 and 4.4 below membership shall be open to anyone with an interest in the QL on payment of an annual subscription the amount of which shall be determined by the members in general meeting.

4.1 Associate membership shall be open to any person whose spouse is an ordinary member. Associate members shall pay an annual subscription the amount of which shall be determined by the members in general meeting. They shall have the same privileges as ordinary members save that they shall not receive a copy of the QUANTA Magazine separate to their spouses.

Amend clause to apply to any family members, rather than just

spouses in line with current anti-discrimination legislation - it will also allow children to be associate members

NEW 4.1 Associate membership shall be open to any person who is a member of the same household as an ordinary member. Associate members shall pay an annual subscription the amount of which shall be determined by the members in general meeting. They shall have the same privileges as ordinary members save that they shall not receive a paper copy of the QUANTA Magazine.

4.2 The Committee shall be empowered to elect up to ten honorary members of QUANTA who shall have the same privileges as ordinary members except that they may not vote at general meetings.

4.3 The Committee shall have the power to award complimentary membership to persons performing services to QUANTA.

Amend clause to distinguish complimentary and honorary membership

NEW 4.3 The Committee shall have the power to award complimentary membership to persons performing services to QUANTA. The term of such complimentary membership shall be agreed by the Committee at the time of award.

4.4 The Committee shall have the power to refuse or cancel membership where they consider it to be in the best interests of QUANTA.

Amend clause to clarify what happens if membership is refused or cancelled.

NEW 4.4 The Committee shall have the power to refuse or cancel membership where they consider it to be in the best interests of

QUANTA. In the event of refusal or cancellation, the members subscription shall be returned (pro rata where membership is cancelled during the year).

4.5 The subscription shall be for a full year commencing January or July. Members joining after January but before June will receive all the issues of QUANTA Magazine from February on. Members joining in June or later will receive one year's issues of QUANTA Magazine commencing July.

Amend clause to have just one renewal date and highlight that the subscription is non-refundable

NEW 4.5 The subscription shall be for a full year commencing January. Members joining after January will receive all the issues of QUANTA Magazine from February onwards. Except in the case of cancellation or refusal under clause 4.4, the subscription is non-refundable.

5 COMMITTEE

5.0 The affairs of QUANTA shall be managed by a committee selected from the membership and shall consist of three officers namely Chairman, Secretary and Treasurer and not more than six other members. These officers and committee members shall be elected at the Annual General Meeting.

Amend clause - more modern version of Chairman, and clarification as to the types of committee members. Chairman will need to be replaced by 'Chair' throughout.

NEW 5.0 The affairs of QUANTA shall be managed by a committee ("the Committee") selected from the membership and shall consist of three officers namely Chair, Secretary and Treasurer ('Officers')

and not more than six other members ("Ordinary Committee Members"). These Officers and Ordinary Committee Members shall be elected at the Annual General Meeting.

5.1 Any member seeking election to the committee shall declare any commercial interest that he or his employer has in the activities of QUANTA or it's members.

Minor changes to the typing and clarify minimum age requirements - renumber clauses accordingly.

NEW 5.1 Any member seeking election to the Committee shall declare any commercial interest that he or his employer has in the activities of QUANTA or its members.

NEW 5.2 Any member seeking election as an Officer must be aged 18 or over.

5.2 Save as provided in clause 5.3 below, no member shall serve on QUANTA Committee continuously for more than six years without standing down for at least one year before seeking re-election.

5.3 Notwithstanding the provisions of clause 5.2 above, members elected to be one of the three officers namely Chairman, Secretary, and Treasurer shall, unless they themselves choose otherwise, be reelected automatically and without challenge at the Annual General Meetings held in the years first and second next ensuing.

5.4 If, at the expiration of the third year of office, an officer shall have served continuously on the Committee for more than six years, then clause 5.2 shall apply

Changes to clarify wording in this clause and to ensure that a member of the Committee does not have to stand down in the mid-

dle of a year.

QUERY: Should the term of office be the same for all committee members and set at two years - members thoughts are required please

NEW 5.2 Save as provided in clause 5.3 below, no member of the Committee who has been a member of the Committee continuously six years or more shall be eligible for re-election without standing down for at least one year before seeking re-election.

NEW 5.3 Members elected to be one of the three Officers shall be elected for a term of three years ending on the date of an Annual General Meeting and remain eligible for re-election (subject to clause 5.2 above) at the expiry of that term..

NEW 5.4 Ordinary Committee Members shall be elected for a term of one year ending on the date of an Annual General Meeting and remain eligible for re-election (subject to clause 5.2 above) at the expiry of that term.

5.5 Not more than one officer shall stand down at the same time. In the event of more than one officer becoming so due then the officer to stand down shall be determined either by agreement between the officers concerned or else by the spin of a coin.

Changes to clarify what will happen to the Officer who does not have to stand down.

NEW 5.5 Not more than one Officer shall stand down at the same time. In the event of more than one Officer becoming so due, then the Officer to stand down shall be determined either by agreement between the Officers concerned or else by the spin of a coin. The Officer(s) who does not have to stand down as a result of this clause, shall become due for re-election at the Annual General

Meeting in the following year.

5.6 Not more than one other member shall stand down at the same time. In the event of more than one other member becoming so due then the other member to stand down shall be determined either by agreement between the other members concerned or else by the spin of a coin.

Minor change to reflect change to terminology

NEW 5.6 Not more than one Ordinary Committee Member shall stand down at the same time. In the event of more than one other Ordinary Committee Member becoming so due then the Ordinary Committee Member to stand down shall be determined either by agreement between the other members of the Committee concerned or else by the spin of a coin.

5.7 The Librarian and Magazine Editor by reason of their office shall be included in the six other members of the Committee.

Clause 5.7 will be deleted as this is implicit. Clauses to be renumbered accordingly.

5.8 The Committee shall have power to fill vacancies by co-opting ordinary members to the Committee. Such members shall have a vote in committee and shall serve until the next Annual General Meeting.

Clause 5.8 has been re-written to add greater clarity over wording and changes to terminology.

NEW 5.7 The Committee shall have power to fill vacancies by co-

opting members to the Committee. Such members may be appointed as one of the Officers, or Ordinary Committee Members and shall in all respects have the same rights and powers as they would have acquired had they been duly elected to the Committee. These co-opted Committee Members shall serve until the next Annual General Meeting.

5.9 That all duties and responsibilities other than those residing with the Officers be determined by the Committee.

Clause 5.9 will remain (renumbered).

Additional clause 5.9 to allow the current Chair to determine how they would like to be referred to. The phrase 'Chairman' has been replaced with 'Chair' throughout the document.

NEW 5.10 Following election the Chair may determine the name by which their post will be referred to (for example, Chairman, Chair, or Chairperson).

6 COMMITTEE MEETINGS

6.0 The quorum for a Committee meeting shall be two or half the number of Committee members (rounded down to the nearest whole number) whichever is the greater, including at least one Officer.

Amendment to Clause to allow committee meetings over the telephone, by email, or over the internet.

NEW 6.0 The quorum for a Committee meeting shall be a minimum of two or half the number of Committee members (rounded down to the nearest whole number) whichever is the greater, including at least one Officer. For the purposes of the quorum, Committee members must be present either in person, or by telephone, the in-

ternet or other technology (subject to the proviso that such person can listen to, speak to, interact with and take an active part in proceedings).

6.1 Committee meetings shall be held at the Chairman's call at seven days written or oral notice.

Minor change to reflect that notice may be more than 7 days

NEW 6.1 Committee meetings shall be held at the Chair's call on at least seven days written or oral notice.

6.2 No Officer or other member of the Committee shall be entitled to payment for undertaking any task for QUANTA other than the reimbursement of properly incurred and authorised expenses.

Clause 6.2 to remain.

New clause 6.3 to clarify that written or electronic decisions by the Committee are valid:

NEW 6.3 Decisions made by the Committee either in writing or sent electronically, shall be treated as though they were made at a Committee Meeting at which those Committee Members who take part in the decision making process were present. In such an instance, the Secretary must maintain a written record of the decision made by the members.

7 FINANCIAL MATTERS

7.0 The accounting year shall run from 1st January to 31st December in each year.

7.1 All money belonging to QUANTA shall be paid by the Treasurer into

separate account or accounts in the name of QUANTA at a bank nominated by the Committee.

7.2 Proper books of account shall be kept and a Statement of Income and Expenditure and Balance Sheet made up to the preceding 31st December together with the report of the auditor thereon.

7.3 No contract or commitment of a recurring or onerous nature shall be incurred, entered into or made without the approval of the Committee except that in the event of an emergency such matters can be authorised by the Treasurer and either the Chairman or the Secretary.

7.4 The Treasurer, Chairman and Secretary, are authorised as Bank Signatories during their term of office. All cheques above one thousand pounds will require two signatories. The Librarian will sign for the Library account.

To remain largely the same with some changes to terminology. Also there is no longer a library account, therefore reference in 7.4 deleted. Limit on cheques to be reduced to £500 and to cover all transactions (not just cheques)

NEW 7.3 No contract or commitment of a recurring or onerous nature shall be incurred, entered into or made without the approval of the Committee except that in the event of an emergency such matters can be authorised by the Treasurer and either the Chair or the Secretary.

NEW 7.4 The Officers are authorised as Bank Signatories during their term of office. All transactions above five hundred pounds (£500) will require two signatories.

7.5 At each Annual General Meeting the members shall appoint an auditor to hold office until the close of the next Annual General Meeting. No member of the Committee shall be eligible for appointment as auditor.

7.6 The Librarian and Sub Librarians will keep records of their receipts

and payments. Sub Librarians will account direct to the Librarian who will account for all librarians to the Treasurer at three monthly intervals.

Clause 7.6 has been deleted - all payments should be directly through the treasurer, as there is no separate library account, and no sub-librarians.

8 ANNUAL GENERAL MEETING

8.0 The quorum for any general meeting shall be ten.

Clause amended to allow participation by members in a general meeting over the telephone or internet.

NEW 8.0 The quorum for any general meeting (including the Annual General Meeting, or any Special General Meeting) shall be ten members. For the purposes of the quorum, members must be present either in person, or by telephone, the internet or other technology (subject to the proviso that such person can listen to, speak to, interact with and take an active part in proceedings).

8.1 The Annual General Meeting shall take place on or before 30th April in each year. Ordinary business at such meeting shall be:-

8.1.1 To receive the Annual Report of the Committee.

8.1.2 To receive the annual accounts and auditor's report.

8.1.3 To elect members of the Committee.

8.1.4 To appoint an auditor and authorise the committee to fix his remuneration.

8.2 The agenda, annual report, accounts for the previous year and notice convening the meeting shall be circulated to the members at least twenty eight days before the date of the Annual General Meeting.

8.3 All nominations for committee posts and any proposition to be put at an Annual General Meeting other than the ordinary business stated in 8.1 above shall be signed by the intending proposer and seconder, be sent to the Secretary and be received before 1st February in each year so that they can be circulated with the notice convening the meeting.

Clause amended to clarify that nominations must be made by members of QUANTA and also the nominee must know about the nomination. Also require any members proposing items for the AGM must be present so that they can explain the item.

NEW 8.3 All nominations for committee posts shall be signed by the intending proposer, a seconder, and the nominee and be sent to the Secretary and be received before 1st February in each year so that they can be circulated with the notice convening the meeting

NEW 8.4 Any proposition to be put at an Annual General Meeting other than the ordinary business stated in 8.1 above shall be signed by the intending proposer and a seconder and be sent to the Secretary and be received before 1st February in each year so that they can be circulated with the notice convening the meeting. Unless the Chair otherwise agrees, the Annual General Meeting will then only consider such proposition in the event that either the proposer or seconder is in attendance at that Annual General Meeting in order to answer questions on the proposition.

8.4 Any proposition to change the Constitution shall be by Special Resolution. A Special Resolution requires to be sent with the notice convening a General Meeting giving twenty-one days notice and requiring a two-thirds majority of those voting.

Minor change to clarify that the Constitution can also be changed at an AGM. 21 days notice to be extended to 28 days notice to give overseas members the opportunity to consider and comment.

NEW 8.4 Any proposition to change the Constitution shall be by Special Resolution. A Special Resolution requires to be sent with the notice convening a General Meeting (or Annual General Meeting) giving at least twenty-eight (28) days notice and requiring a two -thirds majority of those voting.

8.5 The Committee is empowered to make emergency byelaws which must be submitted to the members for ratification at the following Annual General Meeting.

Minor change to clause so that emergency decisions can be ratified by members at any general meeting (not just the Annual General Meeting) - the word 'byelaws' has also been changed to 'decisions' for greater clarity.

NEW 8.5 The Committee is empowered to make emergency decisions which must be submitted to the members for ratification at the following General Meeting.

Addition of two new clauses (8.6 and 8.7) to deal with the case of there not being a quorum present at the AGM and what happens to the committee members who were due to stand down at the AGM.

NEW 8.6 In the event that a quorum is not present within 30 minutes of the start of the Annual General Meeting, the Chair will postpone the Annual General Meeting to be held within 2 months, at a time and venue to be agreed by the Chair. All members will be provided with 14 days notice of the location, date and time of the postponed Annual General Meeting.

NEW 8.7 In the event of clause 8.6 coming into effect, all members of the Committee shall remain in post until the postponed Annual General Meeting and clauses 5.3 and 5.4 shall be taken to refer to the date of the postponed Annual General Meeting

9 SPECIAL GENERAL MEETING

9.0 The Committee shall have the power to call a Special General Meeting when they think it necessary.

9.1 Members may requisition and the Committee shall convene a Special General Meeting within twenty-one days of receiving such a requisition. The said requisition must be signed by at least one hundred members, must state the objects of the meeting which must be in a form on which the members can vote and together with the sum of five hundred pounds sterling (£500) must be deposited with the Secretary. The Committee must give to all members entitled to attend and vote at least twenty-one days notice of the meeting.

Existing clause contains a typo in that it was changed in 2007 to allow a requisition by 20 members. It is now thought that it should be reduced to a percentage of the membership (10%) to allow for changes in membership numbers. Also emphasizes the need for the form of requisition to be circulated to all members prior to the meeting. Time period for notice of meeting also to be extended to 28 days notice to give overseas members the opportunity to consider and comment. Committee still have to send out papers calling the Special General Meeting within 21 days.

NEW 9.1 Members may requisition and the Chair shall call a Special General Meeting within twenty-one (21) days of receiving such a requisition. The said requisition must be signed by at least 10% of the current membership, must state the objects of the meeting, be set out in a form on which the members can vote and together with

the sum of five hundred pounds sterling (£500) must be deposited with the Secretary. The Committee must circulate the form of requisition to all members entitled to attend and vote with at least twenty -eight (28) days notice of the meeting.

9.2 The Annual General Meeting next ensuing shall determine whether the monies deposited with the requisition shall be retained as an offset against the costs of calling and holding the Special General Meeting or any part thereof shall be returned to the requisitionists.

10 VOTING

10.0 In the event of an equality of votes at a Committee or General Meeting the Chairman of the meeting shall have an additional or casting vote.

10.1 Any member shall have the right to appoint a proxy to attend and vote in the member's name at any general meeting. The proxy must be a member of QUANTA.

Amendment to clause to clarify that proxies have to be appointed in writing, and the proxy should take the written form of authority with them to the meeting

NEW 10.1 Any member shall have the right to appoint in writing a proxy to attend and vote in the member's name at any general meeting. The proxy must be a member of QUANTA and must produce the written authority at the meeting.

11 HONORARIA

11.0 Notwithstanding paragraph 6.2 the members may at any General

Meeting award honoraria to any official or Committee member or to any appointed auditor for services carried out for QUANTA.

12 WINDING UP

12.0 In the event of there being no valid candidate presented for election as Chairman at an Annual General Meeting then the whole of the provisions of Clause 12, Winding Up, shall come

into effect.

12.1 Clauses 5.2, 5.3, 5.4, 5.5, and 5.6 shall be suspended.

12.2 The outgoing Officers and other Committee Members shall be elected as the New Committee.

Amend clause to stipulate that in the event of this happening all existing and proposed committee members would work together as the committee in the interim to help find a resolution to this issue.

NEW 12.2 The outgoing Officers and other Committee Members, together with any new members of the Committee elected at the Annual General Meeting shall be elected as the New Committee.

12.3 The New Committee shall use their best endeavours to find, within three calendar months of the date of the said Annual General Meeting, a member willing to take on the office of Chairman.

12.4 In the event of such a member being found then a Special General Meeting shall be convened, within a further period of three calendar months for the sole purpose of formally electing the said member as Chairman, and Clauses 5.2, 5.3, 5.4, 5.5, and 5.6 shall be reinstated as and from 1st February next ensuing.

Amend clause so that along with the new Chair, the new Committee is also appointed at the Special General Meeting.

NEW 12.4 In the event of such a member being found then a Special General Meeting shall be convened, within a further period of three calendar months for the sole purpose of formally electing the said member as Chair and electing the Committee, and Clauses 5.2, 5.3, 5.4, 5.5, and 5.6 shall be reinstated as and from the start of the Special General Meeting.

12.5 If however no such member is found then, notwithstanding the provisions of Clause 9.1 (Calling Special General Meetings), three clear calendar months notice shall be given of a Special General Meeting at which members may by Special Resolution resolve to wind up QUANTA. In such case the assets shall be disposed of at open auction and after discharging all liabilities the proceeds together with all remaining funds and property shall be handed over to the British Red Cross Society or such other charity or charities as the members decide.

12.6 The term "winding up" shall not encompass the merging of QUANTA with another club and in the event of such a merger the Members will determine by Special Resolution the disposition of QUANTA net assets.

13 REVOCATION

13.0 This Constitution revokes and replaces any previous constitution of QUANTA.

Version of Constitution approved at the Annual General Meeting xx April 2012

SUBGROUP MEETINGS

Sub group meetings are where QUANTA members and non-QUANTA members get together to discus, tinker and explore all things QL related. If there is a subgroup near you then why not pop along and see what's happening, you never know there may be something you could help with or a problem that you know the answer to. If there is not a sub-group near you why not hold one your-self? (Ed.)

THE WEST MIDLANDS QL USER GROUP

There has been a change of venue, brought about by the owners of the Queens Head pub changing it from a straight pub into an eatery. The new meeting place is called the Bull, the address is 1 Price Street, Birmingham, B4 6JU. Approx 7 minutes walk from Snow Hill main-line railway station and has ample street parking nearby. Meetings remain open to QUANTA members and non-members alike.

After your first meeting you're expected to pay £1 each time towards the organisation and monthly newsletter costs - except once a year when the group pays all those who attend a pound instead ;-)

We provide food twice a year for those who attend the AGM and the group's birthday party) and at meetings we discuss all sorts of things, QL -related and otherwise, usually from about 8:20pm onwards till 10:30 or later. The group owns QL hardware, a disk library and subscribes to rele-vant magazines. People can join the mailing list for £3.50 per year, even if they can't attend regularly.

Meetings: Meetings are usually on the first and third Monday of each month (but not on bank holidays unless the previous one was cancelled for that reason).

Contact: The contact number remains Mike Bedford White's, on 0121 605 4438, anytime after 11am.

Email: mikebwhite@blueyonder.co.uk

QUANTA DORSET SUBGROUP – Dorset

Meetings are held, on the second Sunday of each month between 2.00pm and 5.00pm. For location please contact: John Penn-Simkins - 01202 422491 or John Mason - 01425 275894

LONDON QL AND QUANTA GROUP

Meetings are held in the School Room, which is the basement of the Borough Welsh Congregational Chapel, 90, Southwark Bridge Road, London SE1. This is almost opposite the junction with Marshalsea Road, at the other end of which, 5 minutes walk away, is the Borough Underground Station. Free parking is easily available in Southwark Bridge Road for road users, Cyclists are welcome.
Members currently each pay a subscription of £40 per year towards the cost of the hire of the hall and a small additional charge is made for tea/ coffee - biscuits are then provided free.
Please bring your QL equipment if possible, all types welcome, e.g., PC portable running emulators. The Group has some systems stored at the venue for its use. In addition, there are lots of donated second user equipment, books, magazines, etc., available for purchase. Time: 2.00 pm. to 5.00 pm., on the second Sunday of the month. No meetings are held in December / January - winter break, or July / August –the summer break, giving 8 meetings a year. Malcolm Cadman - 020 8691 5780
Email: QL@mcad.demon.co.uk

NEMQLUG - THE NORTH EAST MANCHESTER QL USER GROUP

Meetings are held at 181, Urmston Lane, Stretford, Manchester. M32 9EH (Near Junction 7 of M60 Motorway - Was Junction 7 M63 Motorway). Our informal meetings start at 7 p.m. and finish at 11 pm. All welcome. Meetings are on the last Thursday of each month (except December). John/Sarah Gilpin – 0161 865 2872 (thegilpins@btopenworld.com)

SCOTTISH QL USERS GROUP

SQLUG meets at George Gwilt's home every second Sunday in the month. Please contact George Gwilt before coming, to get the location. Gdgqler@gmail.com

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SOLENT SUBGROUP

Meetings are at Botley Market Hall, all welcome. Park at the back and use side entrance on the 1st Saturday of the month from 2.00 pm to 6.00 pm. Graham Evans - 023 8040 3350.

SURREY QUANTA SUBGROUP (SQSG)

The group is currently trying other venues in the Leatherhead - Epsom area. If you plan to attend but do not get our emails, please phone or email Ken Bain for the latest location. Meetings are 8.00 to 10.00 pm on the last Wednesday of each month except December. Ken Bain - 01932 347432 (to midnight), kenb@bcs.org.uk

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SUSSEX QL USER GROUP

Currently without a meeting place, anyone interested should contact Roy Wood - 01273 430501 or Keith Mitchell - 01903 742263.

LATE NEWS — Lee Privett

Obituary

It is with the deepest sadness and sorrow that we announce the death of Roberto Orlandi. He was only 47 years old when he suddenly died on 16th of December 2010 while playing tennis. He leaves behind his wife and two children. He was (in partnership with Eros Forenzi) the driving force behind the Italian Qitaly group for many years. And corresponded many times with Dilwyn Jones correspond in the early 1990s when they bought a lot of DJC software for their group members.

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